

Abstract

A fuel cell uses porous metal layers attached on a flex substrate for delivery of liquid fuel to the active catalytic areas on the anodic side. The flex substrate may form an enclosed package such that the liquid fuel can be contained in the enclosed volume and the air can freely exchange with the cathode side of the fuel cell without the need of microchannels and plumbing for mass transporting both fuel and oxygen to the active catalytic area. The porous metal provides a large surface area for the catalytic reaction to occur.